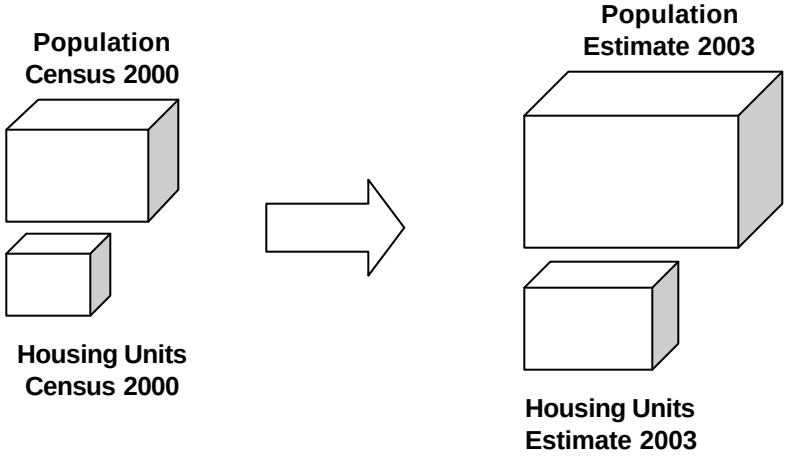
Population Estimate Methodology

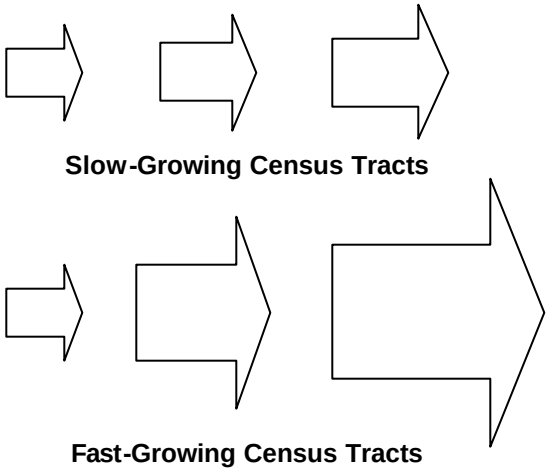
The City's population estimate is based on factual information available regarding population growth since the decennial Census in April 2000...housing units and group quarters counts. A count of certificates of occupancy issued for new units, demolition permits and counts of housing units brought into the City by annexation are added to the total unit count in the Census 2000 figures (which were measured in April of 2000) to reach a new total unit count for the City. The relationship between housing units and population is set by average persons-per-household and the occupancy rate of housing units. These figures (again, from Census 2000 measurements) differ in each of the City's census tracts. Attempting to estimate changes in either of these figures in any census tract is at best conjecture. No reliable annual data exists on changes in persons-per-household, and though industry analysts update occupancy information for the apartment market on an annual basis, occupancy of owner-occupied structures is not tracked. But it can be safely assumed, and it is in this estimate methodology, that the overall city-wide relationship between housing units and population as measured by aggregate persons-per-household and occupancy varies only slightly over time, and should be very close in 2003 to that in April of 2000. Within any particular census tract this is likely not the case, as changes in these two multipliers from April 2000 to 2003 may be dramatic in fast-growing census tracts on the fringes of the



ASSUMPTION:
The same relationship of housing units to population exists in the aggregate in 2003 as in 2000. Persons-per-household and occupancy rates in the City as a whole are consistent over this time.

community. Therefore, the City's methodology estimates overall population using the more certain aggregate figure, and attempts to distribute this population growth to various census tracts based on their rate of growth.

An analysis of the rates of growth in housing units in each census tract shows the number of housing units in some tracts growing at rapid rates, while in more built-out parts of the city, the



ASSUMPTION:
The persons-per-household and occupancy figures measured in April 2000 are more likely to be a good measure of the relationship of housing units to population in slow-growing census tracts than in fast-growing ones

number of housing units is growing very slowly if at all. One can assume that the faster-growing census tracts are more subject to volatile changes in occupancy rates and persons-per-household rates as new families move in, and as new housing developments come on line and are sold or leased. For the purposes of this estimate, it is assumed that any census tract adding less than 50 units since April 2000 is likely to have maintained roughly the same persons-per household and occupancy figures that were measured during Census 2000.

Estimating Calculations

Overall Population Estimate for the City is calculated by applying the aggregate city-wide relationship between housing units and population that was measured in April 2000 to the new housing unit count in January 2003:

Citywide population estimate = [Population (4/2000)] + [New Housing Units since 4/2000 * .9330 (aggregate occupancy 4/2000) * 2.30 (aggregate pph 4/2000)]

The distribution of this overall population into Planning Districts and City Council Districts is a little more complex. First it is important to estimate the proportion of the population in slow-growing census tracts that are more predictable, and which reasonably can have the Census 2000 census tract occupancy and persons-per-household figures applied to the new census tract unit count:

Population in slow growing census tracts = [Census tract population (4/2000)] + [New Housing Units in that Census tract since 4/2000 * x * y] + New Group Quarters residents

where "x" is the specific occupancy figure in that census tract in 4/2000, and "y" is the specific persons-per-household figure in that census tract in 4/2000, and "group quarters residents" represent occupants of boarding houses, dormitories, fraternities or sororities, etc. These residents are measured separately in Census 2000 figures. Since all group quarters are registered with the City, an accurate annual count of residents is made by the Planning Data Center.

Population in fast growing census tracts is then estimated by distributing the remaining population growth among all the fast-growing census tracts in proportion to the number of units added to each tract.

Total Population in Fast-Growing Census Tracts (P) = Total City Population – Sum of Population in all Slow Growing Census Tracts

Relationship between Housing Units and Population for Fast-Growing Census Tracts (R) = [(P)- Total Group Quarters Residents] / Total Housing Units added since 4/2000 in Fast Growing Census Tracts

Population in Fast-Growing census tracts = [New Housing Units in each census tract since 4/2000 * (R)] + Group Quarters Residents in each census tract

This methodology assumes that the persons-per-household and occupancy figures are essentially the same for all fast-growing census tracts. Clearly this cannot be true, but absent any empirical data to support other assumptions, it is the fairest and most consistent means for distributing population in fast-growing parts of the City.

Estimating Planning District Distributions

The Planning Data Center also publishes an Extraterritorial Jurisdiction (ETJ) population estimate divided into the City's 10 Planning Districts. In 2000, the Planning Data Center created a total unit count in each Planning District by counting units on the block level. To estimate current population in each Planning District, the methodology is similar to that of a city-limits estimate:

First, an overall relationship between housing units and population for the total ETJ is derived by using Census 2000 occupancy and persons-per-household figures at the census tract level. This is applied to the unit count in each census tract to arrive at a total occupied units count for the ETJ area, which is divided into the total population.

Then this relationship is applied to the new unit count for the current period, which results in a current total ETJ population estimate.

Population in the 4 Planning Districts that contain little or no ETJ (they consist of almost entirely area within the City Limits) are estimated using the Census 2000 persons-per-household and occupancy figures at the census tract level, with the resulting census tract population estimates aggregated to the Planning District level. These Planning Districts are assumed to have changed little in terms of occupancy and persons-per-household since April 2000, and therefore a reasonable estimate of their population can be made by applying the same factors as Census 2000 to the new unit count, with the addition of group quarters residents in each District.

The total population thus estimated in these 4 Planning Districts is then subtracted from the total ETJ population estimate, and the remaining population growth is distributed among the remaining 6 Planning Districts, in proportion to the number of new units added in each District, plus the count of group quarters residents in each District.